Claims

1. Method for machining running surfaces of a railroad wheel set, characterized in that

- the wheel set with both wheel disks is placed on several supporting and drive rollers of a movable wheel set machine,
- \the wheel set axle is received and centered between back centers of two supported tailstocks,
- the position of the wheel set relative to the center of the machine is ascertained,
- depending on the result of the ascertainment, a tool is first is adjusted first in Z direction of the machine to machine the running surface of at least one of the two wheel disks of the wheel set,
- the wheel set is imparted rotation by at least one of the supporting and drive rollers,
- the back of the running surface is then planed by means of the tool,
- the planed back of the running surface is supported in Z direction and
- the supported running surface is profiled by means of a tool.

2. Method to machine running surfaces of a railroad wheel set, characterized in that

- the wheel set axle is received and centered between back centers of two supported tailstocks of a movable wheel set machining machine,

- the position of the wheel set relative to the center of the machine is ascertained,
- depending on the result of the ascertainment, a tool for the machining of the running surface of at least one of the two wheel disks of the wheel set is first adjusted in Z direction of the machine,
- a drive roller is applied to the running surface of at least one of the two wheel disks of the wheel set and rotation is thereby imparted to the wheel set,
- the back of the running surface is then planed by means of the tool,
- the planed back of the running surface is supported in Z direction and
- the supported running surface is profiled by means of a tool.

3. Method as in claim 1 or 2, characterized in that the running surfaces are planed and/or profiled by turning, milling or grinding.

4. Method as in one of the claims 1 to 3, characterized in that the position of the wheel set relative to the center of the machine is ascertained by tracing a shoulder or relief of the wheel set axle by means of a tracer.

5. Method as in one of the claims 1 to 4, characterized in that the backs of each of the running surfaces of the two wheel disks of the wheel set are planed by means of a tool.

6. Method as in claim 5, characterized in that the AR distance between the two backs of the running surfaces is adjusted.

7. Method as in one of the claims 1 or 2, characterized in that the planed back of the running surfaces is supported in Z direction by means of a roller.

8. Method as in one of the claims 1 to 3, characterized in that brake disks that may also be present on the wheel set are machined by means of a tool.

9. Method as in claim 8, characterized in that the same tool is used to machine brake disks as to machine running surfaces.

10. Machine tool for the machining of running surfaces and/or brake disks of railroad wheel sets by chip-removing machining, characterized by

- a movable machine frame (5),
- two back centers (8) each of which is supported in a tailstock (9) so as to bew capable of longitudinal displacement and rotation and at a distance from each other in Z direction of the machine frame (5) equal to the length of the wheel set (7) length and aligned with each other,
- a common support of the two tailstocks (9)
- at least one supporting and/or drive roller (4) that can be brought to bear against the running surface (1) of at least one of the two wheel disks (3) of the wheel set (2) which can be brought into contact with.

- at least one apparatus to ascertain the position of a wheel set (2) in Z direction relative to the center (10) of the machine frame (5),
- at least one tool carriage (19) with
- at least one tool (11, 14)
- one advance feed to move the tool carriage (19) at least in directions X and Z and
- one support of the running surfaces in Z direction.

11. Machine tool as in claim 10, characterized in that the common support of the two tailstocks (9) consist of a yoke (20) for each tailstock (9) and two draw bars (21) connecting the two yokes (20) with each other.

12. Machine tool as in claim 10, characterized in that two supporting and drive rollers (4) are provided for each wheel disk (3) of the wheel set (2).

13. Machine tool as in claim 12, characterized in that the two supporting and drive rollers (4) are at a distance from each other and are located nearly vertically below the wheel set (2) held between the back centers (8).

14. Machine tool as in claim 13, characterized in that the two supporting and drive rollers (4) can be adjusted and fixed in X direction.

15. Machine tool as in claim 10, characterized in that a tracer (16) movable at least in Z and X directions is provided.

16. Machine tool as in claim 10, characterized in that the tool support (19) is movable in X, Y and Z directions.

17. Machine tool as in claims 15 and 16, characterized in that the tool carriage (19) is provided with a tool receptacle (22) to receive a machining tool (11, 14) or a tracer (16)

18. Machine tool as in claim 10, characterized in that at least one rotatably mounted supporting roller (17) is provided and is longitudinally movable in Z direction.